

Amendments to the claims

Claims 1-21 (canceled)

22. (currently amended) A method for grinding recyclable products comprising the steps of:

advancing recyclable material onto a solid grinding wheel, wherein said grinding wheel is surrounded by a shroud;

grinding said recyclable material with a said grinding wheel to produce recyclable particles; and

cooling said grinding wheel using a cooling jacket thermally coupled to said shroud.

23. (original) The method of claim 22 wherein said advancing step includes advancing recyclable material using a plunger.

24. (original) The method of claim 22 wherein said advancing step includes advancing recyclable material using an auger.

25. (original) The method of claim 22 wherein said cooling step includes cooling using a liquid-cooled cooling jacket.

26. (original) The method of claim 22 wherein said cooling step includes cooling using a cooling jacket including at least one liquid inlet and at least one liquid outlet to allow circulation of liquid within the cooling jacket.

27. (currently amended) A method for recycling rubber material using a grinding wheel comprising the steps of:

advancing rubber material against a solid grinding wheel, wherein said grinding wheel is surrounded by a shroud;

grinding said rubber material into rubber particles;

cooling said grinding wheel using a cooling jacket thermally coupled to said shroud;

conveying said rubber particles away from said grinding wheel; and

separating said rubber particles based on size.

28. (original) The method of claim 27 wherein said cooling step includes cooling using a liquid-cooled cooling jacket.

29. (original) The method of claim 27 wherein said cooling step includes cooling using a cooling jacket including at least one liquid inlet and at least one liquid outlet to allow circulation of liquid within the cooling jacket.

30. (original) The method of claim 27 wherein said screening step includes screening rubber particles based on size using at least two screens.

31. (original) The method of claim 27 further including the step of processing airborne rubber particles using a vacuum system.

32. (canceled)

33. (new) A method for grinding recyclable products comprising the steps of:

advancing recyclable material onto a solid grinding wheel, wherein said grinding wheel is surrounded by a shroud;

grinding said recyclable material with said grinding wheel to produce recyclable particles; and

cooling said grinding wheel using a cooling jacket in thermal contact with said shroud.

34. (new) A method for recycling rubber material using a grinding wheel comprising the steps of:

advancing rubber material against a solid grinding wheel, wherein said grinding wheel is covered by a shroud;

grinding said rubber material into rubber particles;

cooling said grinding wheel using a cooling jacket in thermal contact with said shroud;

conveying said rubber particles away from said grinding wheel; and
separating said rubber particles based on size.

35. (new) A method for producing commercially usable rubber particles from used rubber material comprising:

substantially powderizing used rubber material using a solid grinding wheel that is surrounded by a shroud, said powderizing taking place at substantially ambient temperatures; and

cooling said grinding wheel using a cooling jacket in thermal contact with said shroud.